CLAIMS

1.   A method, including steps of

encoding a media stream into a digital content format representing that media stream; and

encrypting a portion of that digital content, less than the entire digital content format representing that media stream, the portion of the digital content that is encrypted being required for presentation of the media stream;

wherein the encrypted version of that digital content is substantially un-changed in formatting parameters from an unencrypted version of that digital content.

2.   A method as in claim 1, wherein

said steps of encoding provide an MPEG encoding of at least some video data.

3.   A method as in claim 1, wherein

said steps of encrypting include steps of

encrypting at least some audio or video data using a block-substitution ci-pher.

4.   A method as in claim 1, wherein

said steps of encrypting include steps of

1   encrypting at least some audio or video data using a block-substitution ci-

2   pher; and

3   refraining from encrypting at least some audio or video data using that

4   block-substitution cipher, wherein an amount of audio or video data not encrypted is

5   less than a block size for that block-substitution cipher.

6

7   5.   A method as in claim 1, wherein

8   said steps of encrypting include steps of

9   identifying at least a first set of data and a second set of data in the digital

10   format; and

11   separately encrypting the first set of data and the second set of data;

12   whereby the first set of data can be made available to a first set of users

13   and the second set of data can be made available to a second set of users, the first set of

14   users being distinguishable from the second set of users.

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16   6.   A method as in claim 1, wherein

17   said steps of encrypting include steps of

18   refraining from encrypting at least one of (a) information by which at least

19   some audio or video data is described, or (b) at least some formatting information.

20

21   7.   A method as in claim 1, wherein

22   the digital content format includes

1   at least some audio or video data; and

2   at least some formatting information.

3

4   8.   A method as in claim 1, wherein

5   the digital content format representing that media stream includes a set of

6 layers, each relatively higher-level layer representing an abstraction for which each

7 relatively lower-level layer represents an implementation thereof;

8   a first set of relatively higher-level layers represent audio or video infor-

9 mation for the media stream, while a second set of relatively lower-level layers repre-

10 sent techniques by which that information is formatted or supplemented; and

11   the step of encrypting is applied only to that portion of the digital content

12 representing audio and video information.

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14   9.   A method as in claim 1, wherein

15   the digital content format representing that media stream includes a set of

16 layers, each relatively higher-level layer representing an abstraction for which each

17 relatively lower-level layer represents an implementation thereof;

18   a first set of relatively higher-level layers represent audio or video infor-

19 mation for the media stream, while a second set of relatively lower-level layers repre-

20 sent techniques by which that information is broken into packets, indexed, multiplexed,

21 or supplemented with metadata; and

1   the step of encrypting is applied only to that portion of the digital content

2   representing audio and video information.

3

4   10.   A method as in claim 1, wherein

5   the digital content format representing that media stream includes a set of

6   layers, each relatively higher-level layer representing an abstraction for which each

7   relatively lower-level layer represents an implementation thereof;

8   a first set of relatively higher-level layers represent audio and video in-

9   formation for the media stream, while a second set of relatively lower-level layers rep-

10   resent techniques by which that information is broken into packets, indexed, multi-

11   plexed, or supplemented with metadata; and

12   the step of encrypting is not applied to at least part of that portion of the

13   digital content representing other than audio and video information.

14

15   11.   A method as in claim 1, wherein

16   the media stream includes at least one of: a movie, animation, sound, still

17   media, a picture, an illustration, a database, a collection of information.

18

19   12.   A method as in claim 1, including steps of

20   selecting that portion of the digital content for encryption so there is no

21   substantial change in distribution of that digital content.

22

1   13.   A method as in claim 12, wherein

2   said steps of selecting include ensuring there is no substantial change in

3 packetization of a set of digital data in that digital content.

4

5   14.   A method as in claim 12, wherein

6   said steps of selecting include ensuring there is no substantial change in

7 synchronization of audio with video portions of the media stream.

8

9   15.   A method as in claim 12, wherein

10   said steps of selecting include ensuring there is no substantial change in

11 length of at least some identifiable audio or video data in that digital content.

12

13   16.   Apparatus including

14   an input port capable of being coupled to a communication link, the

15 communication link being capable of carrying digital content, the digital content in-

16 cluding at least some presentable information and at least some formatting information;

17   a digital content decoder, the decoder being capable of identifying the

18 presentable information in response to the formatting information;

19   a digital content decryptor, the decryptor being capable of decrypting the

20 presentable information in response to a key;

21   wherein the decryptor is protected by a relatively-higher degree of secu-

22 rity than the decoder.

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17.   Apparatus as in claim 16, wherein the communication link includes

at least one of:

a computer network capable of carrying digital content;

a reader capable of retrieving information in response to physical media,

the physical media being capable of carrying digital content.

18.   Apparatus as in claim 16, wherein the decoder includes an MPEG

decoder.

19.   Apparatus as in claim 16, wherein

the decoder is included in a first selected set of hardware or software, the

first selected set being trusted; and

the decryptor and the key are included in a second selected set of hard-

ware or software, the second selected set being relatively more trusted than the first se-

lected set.

20.   Apparatus as in claim 16, wherein the decoder is responsive to the

formatting information to present at least some metadata about one or more media

streams without the decoder having access to the presentation information.

1   21.   Apparatus as in claim 16, wherein the decoder is responsive to the

2   formatting information to provide at least one of the following functions without the

3   decoder having access to the presentation information:

4   known playback functions known for media streams;

5   navigation within the digital content;

6   content selection within the digital content; or

7   manipulation of the presentation.

8

9   22.   Apparatus as in claim 16, wherein the digital content represents a

10   media stream including at least one of: a movie, animation, sound, still media, a picture,

11   an illustration, a database, a collection of information.

12

13   23.   Apparatus as in claim 16, wherein the relatively-higher degree of

14   security includes tamper-resistant hardware operating under control of verified soft-

15   ware.

16

17   24.   Apparatus as in claim 16, wherein

18   the digital content represents a first media stream and a second media

19   stream,

20   the decoder being responsive to the formatting information and the de-

21   cryptor being responsive to a selected key,

1   the selected key providing differential access to selected users to the first

2 media stream and the second media stream.

3

4   25.   Apparatus as in claim 24, wherein

5   the first media stream includes audio information and the second media

6 stream includes video information;

7   the first media stream includes information in a first language and the

8 second media stream includes information in a second language;

9   the first media stream includes presentation information targeted at a first

10 type of audience and the second media stream includes information targeted at a first

11 type of audience.

12

13   26.   A method, including steps of

14   encoding a media stream into a digital content format representing that

15 media stream, that digital content format having a set of information nodes, those in-

16 formation nodes being disposed in at least a partial ordering;

17   encrypting a portion of that digital content, the portion being encrypted

18 less than the entire digital content format representing that media stream, the portion of

19 the digital content that is encrypted being required for presentation of the media

20 stream;

1   wherein the unencrypted portion of that digital content is substantially

2   closed in a direction under that partial ordering, whereby it is possible to decode the

3   unencrypted portion of that digital content without having to decrypt it.